

FIGURE 1

5	TOGGCAAAGC AGCCGGATAC CGCTACGTAT CTGAACTAT TGAAATATT ACGATGCAA AAAGAAAATT TAAGTATAAT ACAGCAGGAT TCTTTAACGG ATTCTAACAA ATTTTCTAA CTGACCATAA <u>AGGA</u> CCAAA AT <u>ATG</u> AAA AAA GCA CTT GCC ACA CTG ATT GCC Met Lys Lys Ala Leu Ala <u>Thr</u> Leu Ile Ala -19 -15 -10	60 120 172 220
10	<u>CTC</u> GCT CTC CCG GCC GCA CTG GCG GAA GGC GCA TCC GGC TTT TAC Leu Ala Leu Pro Ala Ala Leu Ala Glu Gly Ala Ser Gly Phe Tyr -5 1 5	268
15	GTC CAA GCC GAT GCC GCA CAC GCA AAA GCC TCA AGC TCT TTA GGT TCT Val Gln Ala Asp Ala Ala His Ala Lys Ala Ser Ser Leu Gly Ser 10 15 20	316
20	GCC AAA GGC TTC AGC CCG CGC ATC TCC GCA GGC TAC CGC ATC AAC GAC Ala Lys Gly Phe Ser Pro Arg Ile Ser Ala Gly Tyr Arg Ile Asn Asp 25 30 35	364
25	CTC CGC TTC GCC GTC GAT TAC ACG CGC TAC AAA AAC TAT AAA <u>GCC</u> CCA Leu Arg Phe Ala Val Asp Tyr Thr Arg Tyr Lys Asn Tyr Lys <u>Ala</u> Pro 40 45 50 55	412
30	TCC ACC GAT TTC AAA CTT TAC AGC ATC GGC GCG TCC GCC ATT TAC GAC Ser Thr Asp Phe Lys Leu Tyr Ser Ile Gly Ala Ser Ala Ile Tyr Asp 60 65 70	460
35	TTC GAC ACC CAA TCG CCC GTC AAA CCG TAT CTC GGC GCG CGC TTG AGC Phe Asp Thr Gln Ser Pro Val Lys Pro Tyr Leu Gly Ala Arg Leu Ser 75 80 85	508
40	CTC AAC CGC GCC TCC GTC GAC TTG GGC GGC AGC GAC AGC TTC AGC CAA Leu Asn Arg Ala Ser Val Asp <u>Leu</u> Gly Gly Ser Asp Ser Phe Ser <u>Gln</u> 90 95 100	556
45	ACC TCC ATC CGC CTC GGC GTA TTG AGC GGC GTA AGC TAT GCC GTT ACC Thr Ser <u>Ile</u> Gly Leu Gly Val Leu <u>Thr</u> Gly Val Ser Tyr Ala Val Thr 105 110 115	604
50	CCG AAT GTC GAT TTG GAT GCC GGC TAC CGC TAC AAC TAC ATC GGC AAA Pro Asn Val Asp Leu Asp Ala Gly Tyr Arg Tyr Asn Tyr Ile Gly Lys 120 125 130 135	652
55	GTC AAC ACT GTC AAA AAC GTC CGT TCC GGC GAA CTG TCC GTC GGC GTG Val Asn Thr Val Lys Asn Val Arg Ser Gly Glu Leu Ser <u>Val</u> Gly Val 140 145 150	704
60	CCG GTC AAA TTC TGATATGGCG CTTATTCCTGC AAACCGCCGA GCGTTCCGGCG Arg Val Lys Phe 155	764
	CTTTTGTTT CTGCCACCGC AACTACACAA GCGGGGGTTT TTGTACGATA ATCCCGAATG CTGCGGGCTTC TGCGGCCCTA TTTTTGAGG AATCGAAAT GTCCAAAACC ATCATCCACA CCGACA	824
		830

FIGURE 2

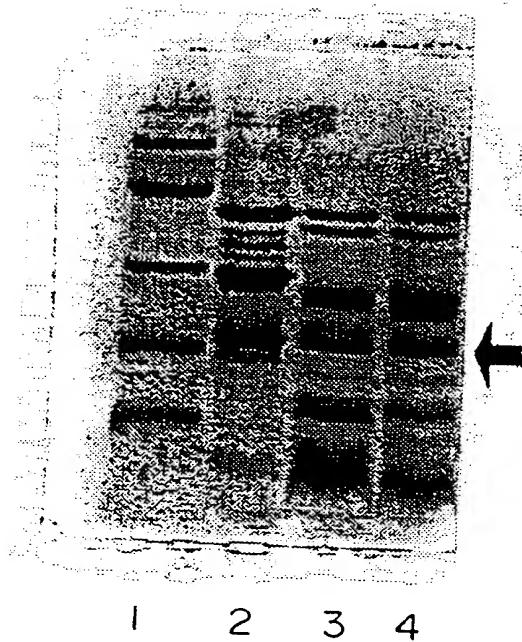
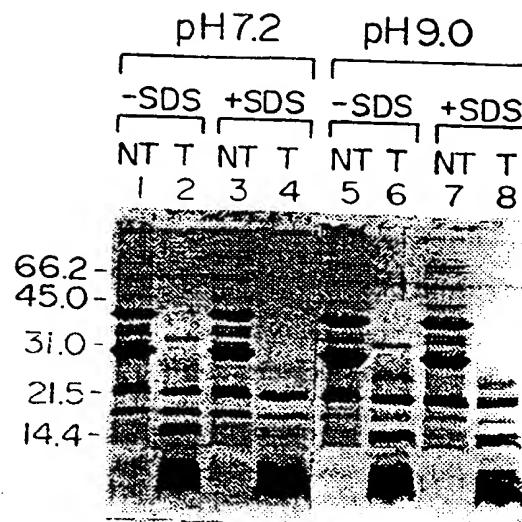


FIGURE 3a



0925732 1105600

FIGURE 3b

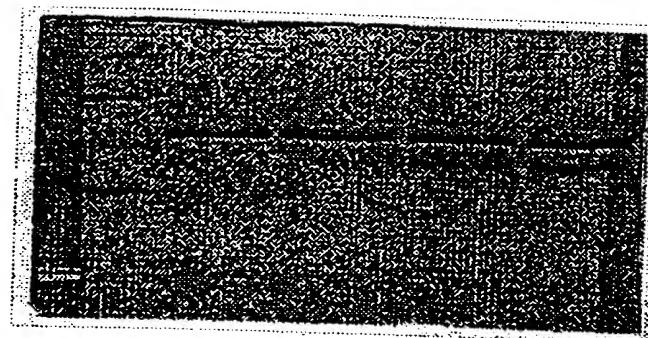
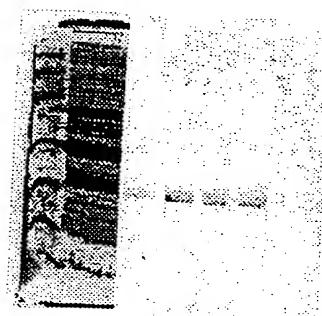
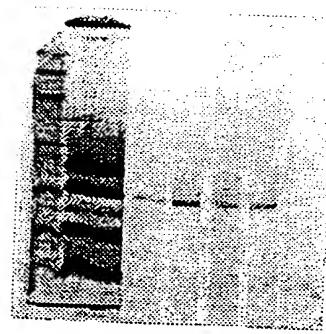


FIGURE 4a



1 2 3 4 5 6

FIGURE 4b



1 2 3 4 5 6

FIGURE 5

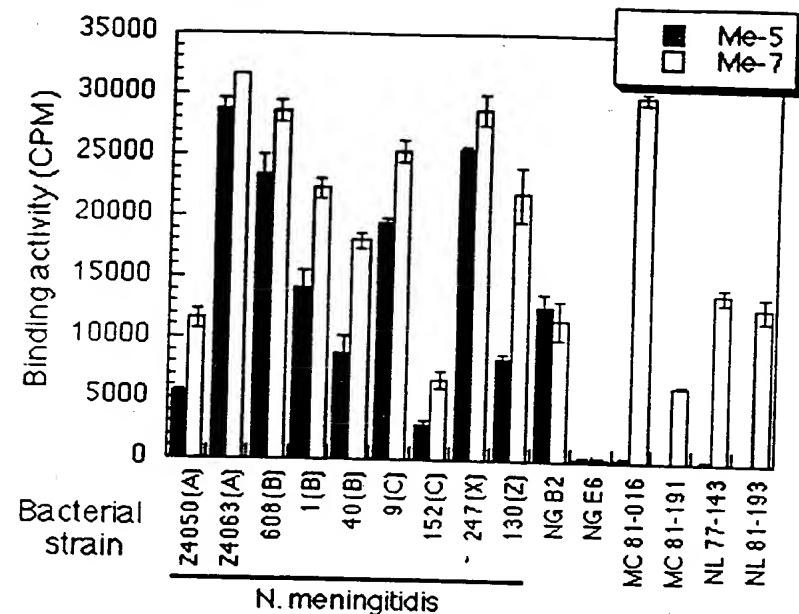
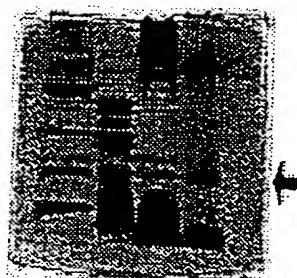
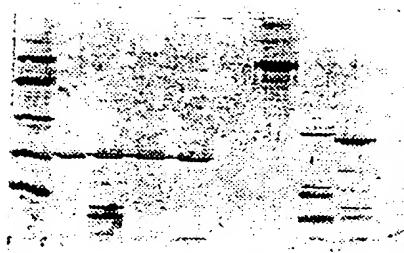


FIGURE 6A



1 2 3 4

FIGURE 6B



1 2 3 4 5 7 8 9 10

FIGURE 6C

NT C T K

6/16

SUBSTITUTE SHEET (RULE 26)

FIGURE 7

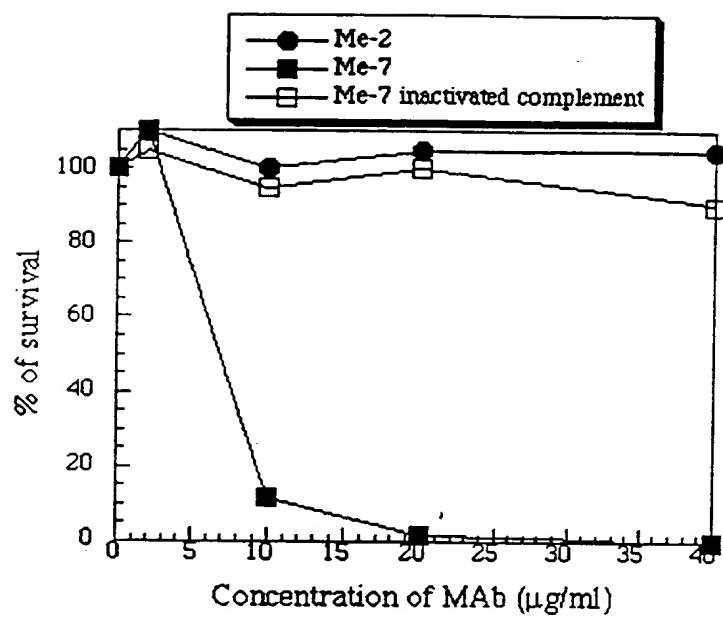


FIGURE 8

5	GTATCTTGAG GCATTGAAAA TATTACAATG CAAAGAAA ATTCAGTAT AATACGGCAG	60
	GATTCTTAA CGGATTCTTA ACCATTTTC TCCCTGACCA TAAAGGAATC AAGAT ATG	118
	Met	
	-19	
10	AAA AAA GCA CTT GCC GCA CTG ATT GCC CTC GCC CTC CGG GCC GCA GCA	166
	Lys Lys Ala Leu Ala Ala Ile Ala Leu Ala Leu Pro-Ala Ala Ala	
	-15 -10 -5	
15	CTG GCG GAA GGC GCA TCC GGC TTT TAC GTC CAA GCC GAT GCC GCA CAC	214
	Leu Ala Glu Gly Ala Ser Gly Phe Tyr Val Gln Ala Asp Ala Ala His	
	1 5 10	
20	GCC AAA GCC TCA AGC TCT TTA GGT TCT GCC AAA GGC TTC AGC CCG CGC	262
	Ala Lys Ala Ser Ser Leu Gly Ser Ala Lys Gly Phe Ser Pro Pro Arg	
	15 20 25 30	
25	ATC TCC GCA GGC TAC CGC ATC AAC GAC CTC CGC TTC GCC GTC GAT TAC	310
	Ile Ser Ala Gly Tyr Arg Ile Asn Asp Leu Arg Phe Ala Val Asp Tyr	
	35 40 45	
30	ACG CGC TAC AAA AAC TAT AAA CAA GTC CCA TCC ACC GAT TTC AAA CTT	358
	Thr Arg Tyr Lys Asn Tyr Lys Gln Val Pro Ser Thr Asp Phe Lys Leu	
	50 55 60	
35	TAC AGC ATC GGC GCG TCC GCC ATT TAC GAC TTC GAC ACC CAA TCC CCC	406
	Tyr Ser Ile Gly Ala Ser Ala Ile Tyr Asp Phe Asp Thr Gln Ser Pro	
	65 70 75	
40	GTC AAA CCG TAT CTC GGC GCG CGC TTG AGC CTC AAC CGC GGC TCC GTC	454
	Val Lys Pro Tyr Leu Gly Ala Arg Leu Ser, Leu Asn Arg Ala Ser Val	
	80 85 90	
45	GAC TTT AAC GGC AGC GAC AGC TTC AGC CAA ACC TCC ACC GGC CTC GGC	502
	Asp Phe Asn Gly Ser Asp Ser Phe Ser Gln Thr Ser Thr Gly Leu Gly	
	95 100 105 110	
50	GTA TTG GCG GGC GTA AGC TAT GCC GTT ACC CCG AAT GTC GAT TTG GAT	550
	Val Leu Ala Gly Val Ser Tyr Ala Val Thr Pro Asn Val Asp Leu Asp	
	115 120 125	
55	GCC GGC TAC CGC TAC AAC TAC ATC GGC AAA GTC AAC ACT GTC AAA AAT	598
	Ala Gly Tyr Arg Tyr Asn Tyr Ile Gly Lys Val Asn Thr Val Lys Asn	
	130 135 140	
	GTC CGT TCC GGC GAA CTG TCC GCC GGC GTA CGC GTC AAA TTC TGATATAACCC	650
	Val Arg Ser Gly Glu Leu Ser Ala Gly Val Arg Val Lys Phe	
	145 150 155	
	GTTATTCGGC AAACCGCGGA GCGTTTGGC GGTTTTGTTT TCGCGCGCGG CAACTACACA	710

FIGURE 9

5	CACCCATCGG CGCGGTGATG CGGCCACAC CATTAAAGG CAACGGCGG GTTAACGGCT	60
	TTCGGCGTCGG CAAAGCAGCC GGATACCGCT ACGTATCTTG AAGTATTAAA AATATTACGA	120
	TGCAAAAGA AAATTAAGT ATAATAAAGC AGAATTCTT AACGGATTCT TAACAATTT	180
10	TCTAACTGAC CATAAAGGAA CCAAAAT ATG AAA GCA CTT GCC ACA CTG Met Lys Lys Ala Leu Ala Thr Leu	231
	-19 -15	
15	ATT GCC CTC GCT CTC CCG GCC GCA CTG GCG GAA GGC GCA TCC GGC Ile Ala Leu Ala Leu Pro Ala Ala Ala Leu Ala Glu Gly Ala Ser Gly	279
	-10 -5 1 5	
20	TTT TAC GTC CAA GCC GAT GCC GCA CAC GCA AAA GCC TCA AGC TCT TTA Phe Tyr Val Gln Ala Asp Ala Ala His Ala Lys Ala Ser Ser Ser Leu	327
	10 15 20	
25	GGT TCT GCC AAA GGC TTC AGC CCG CGC ATC TCC GCA GGC TAC CGC ATC Gly Ser Ala Lys Gly Phe Ser Pro Arg Ile Ser Ala Gly Tyr Arg Ile	375
	25 30 35	
30	AAC GAC CTC CGC TTC GCC GTC GAT TAC ACG CGC TAC AAA AAC TAT AAA Asn Asp Leu Arg Phe Ala Val Asp Tyr Thr Arg Tyr Lys Asn Tyr Lys	423
	40 45 50	
35	GCC CCA TCC ACC GAT TTC AAA CTT TAC AGC ATC GGC GCG TCC GCC ATT Ala Pro Ser Thr Asp Phe Lys Leu Tyr Ser Ile Gly Ala Ser Ala Ile	471
	55 60 65	
40	TAC GAC TTC GAC ACC CAA TCG CCC GTC AAA CCG TAT CTC GGC GCG CGC Tyr Asp Phe Asp Thr Gln Ser Pro Val Lys Pro Tyr Leu Gly Ala Arg	519
	70 75 80 85	
45	TTG AGC CTC AAC CGC GCC TCC GTC GAC TTG GGC GGC AGC GAC AGC TTC Leu Ser Leu Asn Arg Ala Ser Val Asp Leu Gly Gly Ser Asp Ser Phe	567
	90 95 100	
50	AGC CAA ACC TCC ACC GGC CTC GGC GTA TTG GCG GGC GTA AGC TAT GCC Ser Gln Thr Ser Thr Gly Leu Gly Val Leu Ala Gly Val Ser Tyr Ala	615
	105 110 115	
55	GTG ACC CCG AAT GTC GAT TTG GAT GGC GGC TAC CGC TAC AAC TAC ATC Val Thr Pro Asn Val Asp Ala Gly Tyr Arg Tyr Asn Tyr Ile	663
	120 125 130	
60	GCC AAA GTC AAC ACT GTC AAA AAC GTC CGT TCC GGC GAA CTG TCC GCC Gly Lys Val Asn Thr Val Lys Asn Val Arg Ser Gly Glu Leu Ser Ala	711
	135 140 145	
	GGT GTG CGC GTC AAA TTC TGATATGGCG CTTATTCTGC AAACCGCCGA Gly Val Arg Val Lys Phe	759
	150 155	
	GGCTTGGCG GTTTTGTTT CTGCCACCGC AACTACACAA GCGGGGGTT TTGTACGATA	819
	ATCCCGAATG CTGGGGCTTC TGCGGCGCTTA T	850

FIGURE 10

5	CCCCGCCTTT GCGGTTTTT CCAAACCGTT TCCAAGTTTC ACCCATCCGC CGCGTGATGCC	60
	CGCCGTTAA GGGCAACGCG CGGGTTAACCG GATTTGGCGT CGGCAAAGCA GCGGATGCC	120
	GCGCGTATC TTGAGGCATT GAAAATATTA CGATGCAAAA AGAAAATTC AGTATAATAC	180
10	GGCAGGATTTC TTAAACGGAT TATTAACAAT TTTCTCCCT GACCATAAAG GAACCAAAAT	240
	ATG AAA AAA GCA CTT GCC GCA CTG ATT GCC CTC GCA CTC CGC GCC CCC Met Lys Lys Ala Leu Ala Ala Leu Ile Ala Leu Ala Leu Pro Ala Ala	288
	-19 -15 -10 -5	
15	GCA CTG GCG GAA GCG GCA TCC GGC TTT TAC GTC CAA GCC GAT GCC GCA Ala Leu Ala Glu Gly Ala Ser Gly Phe Tyr Val Gln Ala Asp Ala Ala	336
	1 5 10	
20	CAC GCC AAA GCC TCA AGC TCT TTA GGT TCT GCC AAA GGC TTC AGC CCG His Ala Lys Ala Ser Ser Leu Gly Ser Ala Lys Gly Phe Ser Pro	384
	15 20 25	
25	CGC ATC TCC GCA GGC TAC CGC ATC AAC GAC CTC CGC TTC GCC GTC GAT Arg Ile Ser Ala Gly Tyr Arg Ile Asn Asp Leu Arg Phe Ala Val Asp	432
	30 35 40 45	
30	TAC ACG CGC TAC AAA AAC TAT AAA GCC CCA TCC ACC GAT TTC AAA CTT Tyr Thr Arg Tyr Lys Asn Tyr Lys Ala Pro Ser Thr Asp Phe Lys Leu	480
	50 55 60	
	TAC AGC ATC GGC GCG TCC GTC ATT TAC GAC TTC GAC ACC CAA TCG CCC Tyr Ser Ile Gly Ala Ser Val Ile Tyr Asp Phe Asp Thr Gln Ser Pro	528
	65 70 75	
35	GTC AAA CCG TAT TTC GGC GCG CGC TTG AGC CTC AAC CGC GCT TCC GCC Val Lys Pro Tyr Phe Gly Ala Arg Leu Ser Leu Asn Arg Ala Ser Ala	576
	80 85 90	
40	CAC TTG GGC GGC AGC GAC AGC TTC AGC AAA ACC TCC GCC GGC CTC GGC His Leu Gly Gly Ser Asp Ser Phe Ser Lys Thr Ser Ala Gly Leu Gly	624
	95 100 105	
45	GTA TTG GCG GGC GTA AGC TAT GCC GTT ACC CCG AAT GTC GAT TTG GAT Val Leu Ala Gly Val Ser Tyr Ala Val Thr Pro Asn Val Asp Leu Asp	672
	110 115 120 125	
50	GCC GGC TAC CGC TAC AAC TAC GTC GGC AAA GTC AAC ACT GTC AAA AAC Ala Gly Tyr Tyr Asn Tyr Val Gly Lys Val Asn Thr Val Lys Asn	720
	130 135 140	
	GTC CGT TCC GGC GAA CTG TCC GCC GGC GTG CGC GTC AAA TTC TGATATAACGC Val Arg Ser Gly Glu Leu Ser Ala Gly Val Arg Val Lys Phe	772
	145 150 155	
55	GTTATTCCGC AAACCGCCGA GCGTTGGCG GTTTTTTG	810

FIGURE 11

5	MCH88-ORF	.....	.....	G.	.....	.....	.....	.....	50
	608B-ORF	.....	.....	A.	.....	.....	T.	.....	50
	Z4063-ORF	.....	.....	A.	.....	.....	T.	.....	50
	gono b2-ORF	.....	.....	G.	.....	.....	A.	.....	50
	Consensus	ATGAAAAAAG	CACTTGCCRC	ACTGATTGCC	CTCGCHCTCC	CGGCCGCGC	CGGCCGCGC	CGGCCGCGC	50
10	MCH88-ORF	.....	.....	.....	.....	.....	.....	.....	100
	608B-ORF	.....	.....	.....	.....	.....	.....	.....	100
	Z4063-ORF	.....	.....	.....	.....	.....	.....	.....	100
	gono b2-ORF	.....	.....	.....	.....	.....	.....	.....	100
	Consensus	ACTGGCGGAA	GGCGCATCCG	GCTTTTACGT	CCAAGCCGAT	GGCGCACACG	GGCGCACACG	GGCGCACACG	100
15	MCH88-ORF	.....	.....	.....	.....	.....	.....	.....	150
	608B-ORF	.....	.....	.....	.....	.....	.....	.....	150
	Z4063-ORF	.....	.....	.....	.....	.....	.....	.....	150
	gono b2-ORF	.....	.....	.....	.....	.....	.....	.....	150
	Consensus	CTAAAGCCTC	AAGCTCTTAA	GGTTCTGCCA	AAGGCTTCAG	CCCGGCCATC	CCCGGCCATC	CCCGGCCATC	150
	MCH88-ORF	.....	.....	.....	.....	.....	.....	.....	200
	608B-ORF	.....	.....	.....	.....	.....	.....	.....	200
	Z4063-ORF	.....	.....	.....	.....	.....	.....	.....	200
	gono b2-ORF	.....	.....	.....	.....	.....	.....	.....	200
	Consensus	TCCGCAGGCT	ACCGCATCAA	CGACCTCCGC	TTGCCCGTCG	ATTACACGCC	ATTACACGCC	ATTACACGCC	200
	MCH88-ORF	.....	.....	.....	T.	.....	.....	.....	250
30	608B-ORF	.....	.....	.....	C.	.....	.....	.....	247
	Z4063-ORF	.....	.....	.....	C.	.....	.....	.....	247
	gono b2-ORF	.....	.....	.....	C.	.....	.....	.....	247
	Consensus	CTACAAAAAC	TATAAACAAAG	YCCCATCCAC	CGATTTCAAA	CTTTACAGCA	CTTTACAGCA	CTTTACAGCA	250
35	MCH88-ORF	.....	.....	.....	C.	.....	.....	.....	300
	608B-ORF	.....	.....	.....	C.	.....	.....	.....	297
	Z4063-ORF	.....	.....	.....	C.	.....	.....	.....	297
	gono b2-ORF	.....	.....	.....	C.	.....	.....	.....	298
	Consensus	TCGGCGCGTC	CGYCATTTCAC	GAATTCGACA	CCCAATCSCC	CGTCAAACCG	CGTCAAACCG	CGTCAAACCG	300
40	MCH88-ORF	.....	.....	.....	.....	.....	.....	TAA.	350
	608B-ORF	.....	.....	.....	.....	.....	.....	GGG.	347
	Z4063-ORF	.....	.....	.....	.....	.....	.....	GGG.	347
	gono b2-ORF	.....	.....	.....	.....	.....	.....	GGG.	347
	Consensus	TATTTGGCG	CGCCCTTGAG	CCTCAACCGC	GCYTCGGYCS	ACTTTCRRCGG	ACTTTCRRCGG	ACTTTCRRCGG	350
45	MCH88-ORF	.....	.....	.....	C.	.....	.....	G.	400
	608B-ORF	.....	.....	.....	C.	.....	.....	A.	397
	Z4063-ORF	.....	.....	.....	C.	.....	.....	G.	397
	gono b2-ORF	.....	.....	.....	A.	.....	.....	G.	397
	Consensus	CAGGGACAGC	TTCAAGCAA	CCTCCRYCGG	CCTCGGGCGTA	TTGRCGGCG	TTGRCGGCG	TTGRCGGCG	400
	MCH88-ORF	.....	.....	.....	.....	.....	.....	.....	450
	608B-ORF	.....	.....	.....	.....	.....	.....	.....	447
55	Z4063-ORF	.....	.....	.....	.....	.....	.....	.....	447
	gono b2-ORF	.....	.....	.....	.....	.....	.....	.....	447
	Consensus	TAAGCTATGC	CGTTACCCCG	AATGTCGATT	TGGATGCCGG	CTACCGCTAC	CTACCGCTAC	CTACCGCTAC	450
	MCH88-ORF	.....	.....	.....	.....	.....	.....	T.	500
60	608B-ORF	.....	.....	.....	.....	.....	.....	C.	497
	Z4063-ORF	.....	.....	.....	.....	.....	.....	C.	497
	gono b2-ORF	.....	.....	.....	.....	.....	.....	C.	497
	Consensus	AACTACRTOG	GCAAAGTCAA	CACTGTCAAA	AAYGTCGGTT	CGGGCGAACT	CGGGCGAACT	CGGGCGAACT	500
	MCH88-ORF	.....	.....	A.	.....	.....	.....	.....	528
65	608B-ORF	.....	.....	T.	.....	.....	.....	.....	525
	Z4063-ORF	.....	.....	C.	.....	.....	.....	.....	525
	gono b2-ORF	.....	.....	C.	.....	.....	.....	.....	525
	Consensus	GTCGGYCGGY	GTRCGCGTCA	AATTCTGA	.....	.....	.....	.....	528

FIGURE 12

5	gonoB2	.....A.....	.....	.....	.....	.....	.....	50
	Z4063	.....T.....	.....	.....	.....	.....	.....	50
	608B	.....T.....	.....	.....	.....	.....	.....	50
	MCH88	.....A.....	.....	.....	.....	.....	.....	50
	Consensus	MKKALA.LIA	LALPAALAE	GASGFYVQAD	AAHAKASSSL	GSAKGFSPRI	.....	50
10	gonoB2	.....	.....	.....	.....	V..	.....	99
	Z4063	.....	.....	.....	.....	.....	.....	99
	608B	.....	.....	.....	.....	.....	.....	99
	MCH88	.....	.....	QV.....	.....	.....	.....	99
	Consensus	SAGYRINDLR	FAVDYTRYKN	YK-APSTDFF	LYSIGASAIY	DFDTQSPVKP	100	
15	gonoB2	.F.....	AH.....	K..A.....	.....	.....	.....	149
	Z4063	.....	.....	T.....	.....	.....	.....	149
	608B	.....	.....	I.....	T.....	.....	.....	149
	MCH88	.....	FN.....	T.....	.....	.....	.....	150
20	Consensus	YLGARLSLNR	ASVDLGGSDS	FSQTS.GLV	LAGVSYAVTP	NVLDAGYRY	150	
	gonoB2	.V.....	.....	.....	.....	.....	.....	174
	Z4063	.....	.....	.....	.....	.....	.....	174
	608B	.....	.....	V.	.....	.....	.....	174
25	MCH88	.....	.....	.....	.....	.....	.....	175
	Consensus	NYIGKVNTVK	NVRSGELSA	VRVKF	.....	.....	.....	175

FIGURE 13

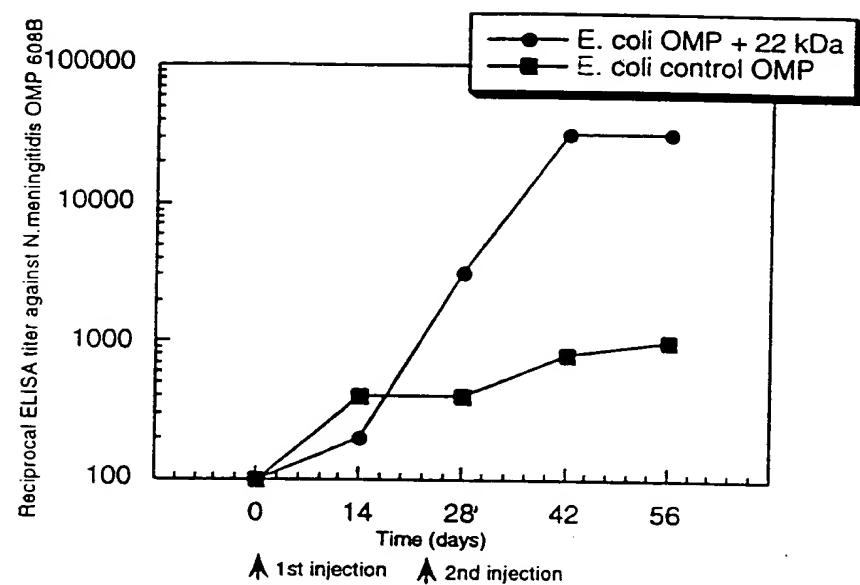


FIGURE 14

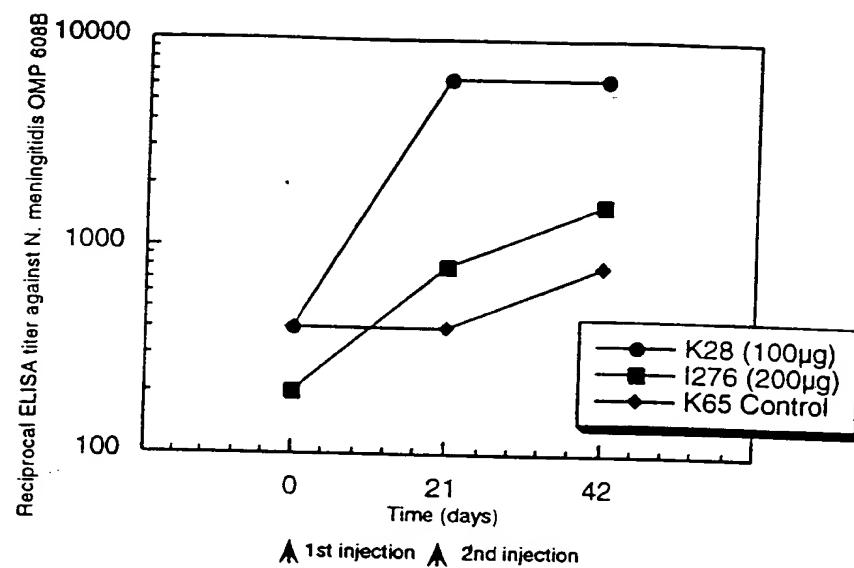


FIGURE 15

	MKKALATLIA	LALPAAALAE	GASGFYVQAD	AAHAKASSL	GSAKGFSPI	50
5	CS-840		CS-842		CS-844	
		CS-841		CS-843		
10	SAGYRINDLR	FAVDYTRYKN	YKAPSTDFKL	YSIGASAIYD	FDTQSPVKPY	100
		CS-846		CS-848		
	CS-845		CS-847		CS-849	
15		CS-857				
	LGARLSLNRA	SVDLGGSDSF	SQTSIGLGVL	TGVSYAVTPN	VDLDAGYRYN	150
20	CS-850		CS-852		CS-854	
		CS-851		CS-853		
25	YIGKVNTVKN	VRSGELSVGV	RVKF			174
		CS-856				
	CS-855					
30						

FIGURE 16

